DOCUMENT RESUME

ED 120 248 TM 005 210

AUTHOR McCollester, Charles W.; And Others
TITLE Teacher-Course Evaluation: A Longitudinal Study of Response Stability and Instrument Reliability.
PUB DATE 75
NOTE 31p.

EDRS PRICE MF-$0.83 HC-$2.06 Plus Postage
DESCRIPTORS *Course Evaluation; Higher Education; Student Characteristics; *Student Evaluation of Teacher Performance; *Teacher Evaluation; *Test Reliability; *Time Perspective

ABSTRACT

The temporal context within which a teacher and course evaluation (TCE) is completed did not appear to be of crucial importance in affecting TCE responses. A sample of students was asked to evaluate, initially as freshmen and retrospectively as seniors, a specific teacher and course. Additional data on the student's academic status characteristics were gathered. The instrument used was the University of Notre Dame Course and Instructor Evaluation. The two sets of TCE responses were compared and the effects of the status characteristics considered. These data, then, allowed for measurement of the influence of time on TCE response. Some vacillation in response was evidenced at the individual level, but at the aggregate level the dominant pattern was one of stability over time. Also, while some alteration in the rank of attitudinal dimensions underlying TCE responses was witnessed over time, the predominant dimension remained of constant importance. (RC)

****
* Documents acquired by ERIC include many informal unpublished *
* materials not available from other sources. ERIC makes every effort *
* to obtain the best copy available. Nevertheless, items of marginal *
* reproducibility are often encountered and this affects the quality *
* of the microfiche and hardcopy reproductions ERIC makes available *
* via the ERIC Document Reproduction Service (EDRS). EDRS is not *
* responsible for the quality of the original document. Reproductions *
* supplied by EDRS are the best that can be made from the original. *
****

ED120248

TEACHER-COURSE EVALUATION: A LONGITUDINAL STUDY OF RESPONSE STABILITY AND INSTRUMENT RELIABILITY

.....

Charles W. McCollester, Michael Switzer Collins,

Timothy Poley,* and Erik Freitag

.....

University of Notre Dame

1975

PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

C. W. McCollester

TO ERIC AND ORGANIZATIONS OPERATING UNDER AGREEMENTS WITH THE NATIONAL INSTITUTE OF EDUCATION. FURTHER REPRODUCTION OUTSIDE THE ERIC SYSTEM REQUIRES PERMISSION OF THE COPYRIGHT OWNER

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

* Presently with the Xerox Corporation, Rochester, New York

TM005 210

Abstract

Information derived from formal evaluations of teacher and course expedites a variety of educational administrative tasks. Correspondingly, student-determined teacher and course evaluation (TCE) has become an increasingly accepted campus ritual. Yet, there is much skepticism among educational administrators regarding the reliability and objectivity of TCE. Although some biases have been shown to systematically affect TCE, there is much empirical evidence strongly supportive of TCE. The present study emerges from an effort to determine the degree of response stability over time in the TCE instrument used at Notre Dame. A sample of students was asked to evaluate, initially as freshmen and retrospectively as seniors, a specific teacher and course. Additional data on the students' academic status characteristics were gathered. The two sets of TCE responses were compared and the effects of the status characteristics considered. These data, then, allow for measurement of the influence of time on TCE response. Some vacillation in response was evidenced at the individual level, but at the aggregate level the dominant pattern was one of stability over time. Also, while some alteration in the rank of attitudinal dimensions underlying TCE responses was witnessed over time, the predominant dimension remained of constant importance. Within the limitations of the student sample, the present study demonstrates that the temporal context within which a TCE is completed does not appear to be of crucial importance in affecting TCE responses.

Context

Information derived from formal evaluations of teacher competence and adequacy of course content expedites a variety of educational administrative tasks. For example, such information provides evidence for decisions regarding course and curriculum revisions; it may suggest cues for the improvement of instructional effectiveness; it aids decision-makers in the difficult areas of faculty retention, promotion, and dismissal. (McNally, 1974)

The recent concurrence in American higher education of unique economic, demographic, and valuational trends has dramatized the need for developing instruments of objective teacher and course evaluation. (Tolor, 1973) Correspondingly, student-determined teacher and course evaluations (TCE) have become an approved and accepted ritual on the campuses of an increasing number of colleges and universities. Yet, at the present time, there appears to exist among educational administrators grave question regarding the reliability, hence, objectivity, of this common procedure. (Siebring and Schaff, 1974)

Some skepticism regarding TCE is well founded. There is no question but that the academic characteristics of the student-evaluator, as well as objective instructional factors, systematically influence TCE responses. Rodin and Rodin (1972), for example, have suggested that an inverse relationship exists

between course-related achievement and TCE. In addition, Bausell and Magoon (1972) have effectively demonstrated the existence of a complex connection between grade expectation, grade-point average, and TCE.

Furthermore, there are some pedagogical issues, bearing upon TCE, that are not yet sufficiently defined for empirical consideration. Much of the current debate regarding educational outcomes, hence, TCE validity, is of this sort. (McKeachie, 1971) Nonetheless, there is much empirical evidence strongly supportive of TCE. (Costin, 1971)

Gessner (1973), for example, in responding to the interesting findings of Rodin and Rodin, has persuasively documented the existence of a strong positive correlation between achievement and TCE. And Kohlan (1973) has delineated salient instructional factor patterns affecting TCE. More importantly, Kohlan has statistically demonstrated a high degree of stability in TCE responses over time.

Design

The present study, emerging from an effort to determine the degree of response stability associated with the TCE instrument employed at the University of Notre Dame, builds most directly on the works of Gessner, of Bausell and Magoon, and, especially, of Kohlan.

In the fall of 1971 the TCE responses of a random sample of

the Freshman Class was drawn from a variety of lower-division courses, and the students represented a number of intended academic majors. Each student who accepted the invitation to participate in the study completed a standard TCE form, but one on which his student identification number was indicated. Of the 250 students selected and invited to participate in the study, 167 initially accepted.

(Notre Dame TCE Form, page 19)

Again in the fall of 1974, these same students, now Seniors, were contacted. At this time they were requested to complete a retrospective TCE, that is, they were asked to evaluate the same teacher and course they had evaluated three years earlier. The TCE form used was an exact copy of the one initially employed, supplemented by a current status sheet in which such items as grade received in the evaluated course, the student's grade-point average, his past and present academic majors, etc., were requested.

(Supplementary Status Sheet, page 20)

The data thus obtained allow for a measurement of the influence of time upon TCE responses. More specifically, the data permit (1) the measurement of TCE aggregate response stability and individual response consistency over time. In addition, (2) selected instructional variables, affecting both the magnitude and the stability of TCE responses, can be delineated and their impact on

TCE measured.

Moreover, (3) the data afford an opportunity to inquire into the nature of student attitudes affecting TCE responses and the stability of these attitudes over time. Lastly, (4) from a clarification of the most stable TCE items and salient student attitudes, some guidelines for improving and streamlining the TCE instrument employed can be suggested.

Findings

Table 1 indicates the response rate and respondent attrition experienced in this study. Of the 250 students invited to participate, 167 accepted the invitation. Of the 167 acceptees, 24 had either quit school or were otherwise unlocatable in the fall of 1974. Of the remaining 143 students, 102 responded with complete information.

(Table 1, page 21)

While the effective sample may be less than representative, the responses provided by these 102 students strongly suggests TCE stasis over time. Table 2 presents the aggregate mean scores by item and the average item score for the total TCE instrument. For only three of the 23 items can it be shown that the mean scores alter significantly, albe't slightly, between the 1971 and 1974 TCE's.

(Table 2, page 22)

Specifically, in recalling their instructor's "promptness in returning work" (Item 11), the students tend to inflate their ratings with time. On the other hand, there is some deflation in the summary rating of their instructor in "comparison with other instructors" (Item 14), and in the remembered "intellectual level of lectures" (Item 19). Perhaps the changes in the responses to these items represent altered attitudes regarding the characteristics of a good teacher and a strong course. But, it is more likely that the responses to these comparative items have changed as a result of the increased academic experience of the student respondents. It must be recalled that these students were in the first semester of their college career when they completed the initial TCE.

The response patterns of two TCE items merit more concentrated attention. Item 14, on the "comparison with other instructors," and Item 23, on the "personal value of course," are intended to be comprehensive in nature and are perceived to possess substantial face validity. Tables 3 through 5 present the response patterns of these items and of the total TCE attained under varying conditions. Table 3 delineates the importance of selected course-related variables, such as the departmental or college origin of the evaluated course, on TCE. Table 4 clarifies the impact of achievement-related variables, including grade expectation and reception and grade-point average, on TCE. Table 5 indicates the relevancy of specified interest-related variables, e.g., the major college of the student-evaluator, for TCE.

(Tables 3, 4, and 5, pages [illegible]-25)

In sum these data confirm that the responses given to TCE items, when considered as a whole, may remain relatively uninfluenced by a host of conditions external to teacher and course. On the other hand, responses to the two selected and important items are not so fixed over time. Consistently there is a strong decrease in the average scores elicited by items 14 and 23. Testing the significance of the difference of means with Student's T test indicates that students with strong grade-point averages, students who are rating a course outside of their academic major, and students who have completed additional courses with the evaluated instructor are especially likely to deflate the comparative evaluation of their instructor (item 14). In addition, students whose grade-point averages are somewhat deficient, and students who major in the natural sciences appear prone to deflating the summary evaluation of their course (item 23).

In the light of studies linking various measures of academic achievement to TCE, such as the works of Rodin and Rodin and of Gessner, it is interesting to note that neither the instructor's grading habits nor a student's grade expectations can be shown to have an influence on the aggregate stability of TCE responses over time. Students whose pessimism concerning grade expectations was verified in reality proved to be no more harsh on their teacher and course in the re-evaluation than were their more favored peers.

Systematic changes in the responses to items 14 and 23 notwithstanding, attention should not be drawn away from the predominant stability of the TCE instrument as a whole. The aggregate data of Tables 2 through 5 suggests that the overall student evaluation given to an instructor and his course does not significantly alter over time. Moreover, the stability of the TCE instrument, as a whole, appears to be subject neither to the temporal context in which the TCE is completed nor the academic characteristics of the student evaluators.

Discussion

Although the analysis of patterns of stability and change in aggregate TCE responses can prove instructive, such an analysis can mask meaningful fluctuations in responses that may occur on an individual level. Table 6 presents the product-moment correlation coefficients between individual item responses on the initial and retrospective TCE's. For all but two items the correlation coefficients are significant at or beyond the .01 level.

(Table 6, page 26)

Ten items produce moderately strong correlations, that is, coefficients within the range of +.40 to +.52. The stability of only four items is greatly suspect. Item 6, on "respect for students' ideas," Item 17, on the "quality of texts," Item 20, on "lectures

as a contribution," and item 22, on "lectures as an integrated course component," prove to be relatively unstable, with coefficients of less than +.25.

It may be that these four items uniquely tap changing student attitudes regarding the characteristics of a good teacher and a strong course, or it may be that these items are especially ambiguous, hence, unreliable, and merit deletion from the TCE instrument. A more direct test of TCE item reliability, such as some form of the split-half technique, can give an indication as to which explanation is more adequate. On the other hand, attention is directed specifically to the matter of changing student attitudes later in this discussion.

Again, attention should not be drawn away from the predominant stability of the TCE instrument on the whole. The correlation coefficient for the average response to all items of the initial and retrospective TCE is +.5296. This statistic, along with the moderately strong item coefficients, lends support to Marsh's view that relevant TCE impressions, perhaps formed early in the semester, tend to remain fixed and to endure over time. Furthermore, these results lend further support to the earlier findings of this study, viz., that the temporal context in which the TCE is completed may not be of critical importance in the evaluation process.

It may be hypothesized at this point in the discussion that some conditions external to TCE may be systematically influencing the stability of individual TCE item responses. While it can be

hypothesized that academic interest-related variables may play some role in conditioning the stability of individual TCE responses, the work of Bausell and Magoon strongly suggests that achievement-related variables could play a major role in affecting TCE stability. Table 7 presents the partial correlation coefficients between individual item averages on the initial and retrospective TCEs, attained while controlling for the effects of selected interest-related and achievement-related variables.

(Table 7, page 27)

In general, the data indicate that such variables as a student's major college, continuation or change of majors between the Freshman and Senior years, additional coursework with the evaluated instructor, grade expectation and grade received in the evaluated course, and grade-point average appear to exert little measureable influence on the constancy of individual TCE responses over time. A major influence would be indicated by a partial coefficient that differs markedly from the correlation coefficient attained under the condition of no controls. In fact these coefficients differ within the narrow range of +.02 to -.04.

The same lack of effect can not be claimed for grade expectation when weighed against the grade actually received in the evaluated course. While a disparity between grade expectation and reception may not affect the magnitude of TCE response, as noted earlier, it apparently does exert considerable influence on the constancy of individual TCE responses. With this variable controlled

the correlation coefficient diminishes by .12. Furthermore, its effect is hardly modified when it is included with other salient achievement-related variables. Nevertheless, the resultant coefficient, namely, +.4127 does maintain the moderately strong relationships between the average item responses in both TCE's.

It should be noted that data on grade expectation is incomplete. Only 38 of the 102 student respondents have provided indication of their initial grade expectation. Furthermore, in most cases expectations have exceeded realities, and the grade received was lower than the grade expected. Therefore, it may be that the strength of this composite variable is an artifact of a skewed and unrepresentative sample. Nevertheless, it is surprising that the extraction of the influence of the disparity between grade expectation and realization produces a decrease, not an increase, in the resultant correlation.

Clarification and interpretation of the role of this variable in the stability of TCE responses over time must await further analysis, but some light can now be shed on a another significant dimension of TCE, namely, characteristics of student attitudes relevant to TCE. In order to delineate the attitudes students have in mind when completing both the initial and the retrospective TCE's, a factor analysis, using a Verimax rotation, was completed on both sets of responses.

(Table 8, page 28)

Table 8 statistically describes the five salient factor patterns common to both sets of TCE responses. The most important factor, accounting for 65% of the variance in each set of TCE responses, attains its highest discrete loadings on two items, viz., Items 6 and 7. Expectedly, the content of these items is quite similar. It might be recalled that Item 6 refers to "respect for students' ideas," while Item 7 refers to "interest in students." Hence, this primary factor can be appropriately labeled Respect for Students, and it suggests that the students in this study tend to equate good and effective teaching with the degree of perceived respect they receive from their instructor. Furthermore, the preeminence of this factor is maintained over time.

(Table 9, page 29)

In addition to the factor of Respect for Students Table 9 indicates the designated labels and the salient item factor loadings of the remaining four factors common to both sets of TCE responses. These factors have been labeled Quality of Readings (from high loadings on Items 16 and 17), Entertainment Value (from high loadings on Items 3, 18, and 20), Course Organization (from high loadings on Items 2 and 10), and Classtime Value (from high loadings on Items 21 and 22).

Two observations can be made from these factor analytical findings. First, while the factors here abstracted are similar to those described by Kohlan, viz., Sturcture, Rapport, Benefit, etc.,

their relative order of statistical importance is altered. Class organization and structure seem to have diminished importance in the minds of the Notre Dame students, while respect and rapport have assumed a primary importance. This difference may be traceable to some aspect of student body self-selectivity, for Kohlan's student evaluators were enrolled in a large state university, whereas Notre Dame is a moderate-sized private institution.

A second and more interesting observation to be made from these factor analyses of TCE responses is seen in the increased attention paid by the student evaluators to the utilization of the classtime hour. The importance of this factor, viz., Classtime Value, in the initial TCE is negligible; however, in the retrospective evaluation the statistical importance of this factor increases nearly threefold. This finding suggests the interpretation that the perspective of time allows the students to more clearly view the academic quality of the classroom experience, per se, apart from the manner and style in which classtime was governed.

These factor analyses of TCE responses suggest the underlying dimensions of student perception in completing an evaluation of an instructor and course. In addition, they illuminate both attitudinal consistencies and contrasts over time. But they provide an additional insight, viz., they can provide clues to the means by which the TCE instrument might be streamlined and improved.

It can be argued, in the absence of confirming data, that the number of TCE items can be effectively reduced. For example, it

is conceivable that a five-item TCE tool, derived from the factor analyses and employing only those items that have proven most stable over time, could be of equivalent relevancy and reliability with the longer, 23-item instrument. Table 10 affords a comparison of selected TCE items in terms of their factor loadings and individual correlation coefficients.

(Table 10, page 30)

On the basis of the data in Table 10, this five-item TCE tool would include Item 7, "interest in students"; Item 16, "quality of readings"; Item 18, "lecturing ability of instructor"; Item 10, "preparation for class"; and Item 21, "relevancy of lectures to course." In addition, the two summary items discussed earlier, viz., Item 14, "comparison with other instructors," and Item 23, "personal value of course," could be included with the foregoing five items. These seven items together could compose a brief, but efficient, TCE instrument, or they might serve as an interpretive core for a more flexible and longer instrument. This latter approach would be similar in intent to the TCE system recently developed at Purdue University. (Derry, et al., 1974)

Conclusions

From its beginnings in 1969, the dual purpose mission of the TCE program at Notre Dame has been to improve teaching and curric-

ulum, on the one hand, and to aid in decisions regarding faculty retention, promotion, and dismissal, on the other. The former goal, viz., improvement of teaching and curriculum, can be attained through a diagnostic interpretation of TCE responses. The latter goal, aiding in decisions affecting faculty status, has had a controversial history, inasmuch as the reliability of student evaluations has been questioned and their importance disputed.

The weight of published empirical evidence challenges any simplistic notion that students respond vengefully or capriciously to TCE demands, although intrusions of systematic biases on the part of student evaluators have been both demonstrated and explored. One area that has not been so carefully explored is that of the effect of the temporal context in which TCEs are administered. At Notre Dame, as at other schools, TCEs are completed in the latter days of the semester. It has been argued that students caught in the pressures and problems associated with a semester's end, and perhaps too close to the teacher and course they must evaluate, can not judge as impartially as would be desirable.

The present study has been directed toward shedding the light of empirical evidence on this argument. The data have evidenced that changes in student evaluations do occur over time, and there is no way short of deciding upon some criteria of validation which TCE is a more accurate reflection of the student's experience of teacher and of course. But, the point to be made from the present study is that the argument that student evaluations will

significantly change with the hindsight of time is, to some extent, more illusion than reality.

Within the limitations of the sample, the present study has demonstrated that the temporal context within which a TCE is completed appears to be neither of crucial nor critical importance. First, although a degree of vacillation in TCE response is clearly evidenced at the individual level, only in a few specific instances can statistical significance be attached to change in aggregate response. Secondly, while some interesting changes do occur in the attitudinal dimensions underlying TCE responses, the predominant dimension, viz., Respect for Students, remains constant in importance.

Literature Cited

Bausell, R. Barker and Don Magoon, "Expected Grade in a Course, Grade Point Average, and Student Ratings of the Course and the Instructor." Educational and Psychological Measurement, Vol. 32 (1972), pp. 1013-1023.

Costin, Frank, William T. Greenough, and Robert J. Menges, "Student Ratings of College Teaching: Reliability, Validity, and Usefulness." Review of Educational Research, Vol. 41 (1971), pp. 511-535.

Derry, J. O., W. F. Seibert, A. R. Starry, J. W. Van Horn, and G. L. Wright, The Cafeteria System: A New Approach to Course and Instructor Evaluation. West Lafayette: Measurement and Research Center, Purdue University, 1974.

Gessner, Peter K., "Evaluation of Instruction." Science, Vol. 180 (1973), pp. 566-569.

Kohlan, Richard G., "A Comparison of Faculty Evaluations Early and Late in the Course." Journal of Higher Education, Vol. 44 (1973), pp. 587-595.

McKeachie, W. J., Yi-Guang Lin, and William Mann, "Student Ratings of Teacher Effectiveness: Validity Studies." American Educational Research Journal, Vol. 8 (1971), pp. 435-445.

McNally, Harold J., "What Makes a Good Evaluation Program." National Elementary Principal, Vol. 52 (1973), pp. 51-55.

Rodin, Miriam and Burton Rodin, "Student Evaluations of Teachers." Science, Vol. 177 (1972), pp. 1164-1166.

Siebring, B. R. and M. E. Schaff, "A Survey of the Literature Concerning Student Evaluation of Teaching." Journal of Chemical Education, Vol. 51 (1974), pp. 150-151.

Tolor, Alexander, "Evaluation of Perceived Teacher Effectiveness." Journal of Educational Psychology, Vol. 64 (1973), pp. 98-104.

I.D.# _____ Seq.# _____ Title _____ Instructor _____

UNIVERSITY OF NOTRE DAME
COURSE AND INSTRUCTOR EVALUATION

CLASS SEQUENCE

STATUS
Freshman
Sophomore
Junior
Senior
Other (e.g. Graduate, Law, etc.)

COURSE IS:
IN MAJOR AND REQUIRED
IN MAJOR BUT NOT REQUIRED
NOT IN MAJOR BUT REQUIRED
NOT IN MAJOR AND NOT REQUIRED

Presently Enrolled (Or Intend To Enroll) In Which College or School (mark one box only)
A & L
Bus. Admn.
Science
Engineer.
Law
M.P.A.
Graduate School

CUMULATIVE G.P.A.
4.00 - 3.50
3.49 - 3.00
2.99 - 2.50
2.49 - 2.00
Under 2.00
N.A.

GRADE EXPECTED
A A- B B- C D F

SEX
(M)
(F)

INSTRUCTIONS

1. USE REGULAR NO. 2 PENCIL ONLY
2. EVALUATE EACH STATEMENT BY COMPLETELY BLACKENING ONLY ONE RESPONSE BOX. DO NOT MARK A BOX WITH A CHECK OR A CIRCLE. COMPLETELY FILL IN THE BOX OF YOUR CHOICE WITH PENCIL
3. IF A STATEMENT DOES NOT APPLY TO THIS COURSE OR INSTRUCTOR, BLACKEN THE NOT APPLICABLE (N.A.) BOX THAT IS PROVIDED
4. IF YOU MAKE A MISTAKE, ERASE CLEANLY AND THEN MARK YOUR CORRECT CHOICE

INSTRUCTOR EVALUATION

(MARK N.A. BOX IF STATEMENT DOES NOT APPLY)

WHAT GRADE WOULD YOU GIVE THIS INSTRUCTOR IN REGARD TO HIS · · ·

	A	A-	B	B-	C	D	F	N.A.
1. ABILITY TO ENCOURAGE INDEPENDENT THINKING								
2. ORGANIZATION OF SUBJECT MATTER								
3. ENTHUSIASM FOR SUBJECT								
4. KNOWLEDGE OF SUBJECT MATTER								
5. ABILITY TO INTERPRET ABSTRACT IDEAS OR THEORIES								
6. RESPECT FOR STUDENTS' QUESTIONS AND DIFFERENCES OF OPINIONS								
7. INTEREST IN STUDENTS AS INDIVIDUALS								
8. AVAILABILITY FOR CONSULTATION AND/OR ASSISTANCE								
9. ABILITY TO MOTIVATE STUDENTS								
10. PREPARATION FOR CLASS								
11. PROMPTNESS IN RETURNING STUDENTS' WORK								
12. ABILITY TO DIRECT DISCUSSIONS AND/OR RECITATIONS								
13. GRADING POLICIES								
14. COMPARED WITH OTHER INSTRUCTORS I HAVE HAD AT NOTRE DAME, I WOULD GRADE THIS INSTRUCTOR								

COURSE EVALUATION

(MARK N.A. BOX IF STATEMENT DOES NOT APPLY)

IN GENERAL, HOW WOULD YOU GRADE THE · · ·

	A	A-	B	B-	C	D	F	N.A.
15. RELEVANCY OF THE READINGS TO THE LECTURES								
16. QUALITY OF THE READINGS								
17. QUALITY OF THE TEXT(S)								
18. LECTURES AS TO HOLDING YOUR INTEREST AND ATTENTION								
19. INTELLECTUAL LEVEL OF THE LECTURES								
20. LECTURES AS A CONTRIBUTION TO IDEAS NOT AVAILABLE IN THE READINGS								
21. RELEVANCY OF THE LECTURES TO THE COURSE								
22. LECTURES AS AN INTEGRATED COMPONENT OF THE COURSE								
23. PERSONAL VALUE OF THE COURSE TO YOU								
24.								
25.								
26.								
27.								
28.								

	Less Than 5 Hours	5 to 9 Hours	10 to 15 Hours	More Than 15 Hours	N.A.
29. APPROXIMATE TIME SPENT ON THE COURSE PER WEEK, OUTSIDE OF THE CLASS ROOM					

	Lighter	About Same	Somewhat Heavier	Much Heavier	N.A.
30. COMPARED WITH OTHER COURSES YOU HAVE TAKEN, WORK LOAD FOR THIS COURSE WAS					

	Completely Outdated	Somewhat Outdated	Agreed Of Times	Agreed Of Times	N.A.
31. CONTENT OF THIS COURSE WAS					

	No Definitely	No Probably	Yes Probably	Yes Definitely
32. WOULD YOU CHOOSE TO TAKE THIS COURSE REGARDLESS OF IT BEING REQUIRED OR AN ELECTIVE?				

DEPT _____ INSTRUCTOR _____ DATE _____

COURSE TITLE _____

STATUS SHEET

I.D. No. _____ 1971 Course Sequence No. _____

Freshman Intent (Name of College) _____

Present Major (Dept. and College) _____, _____

Grade Received in 1971 Course _____ Cumulative GPA Fall 1974 _____

Class Year (Ex., 4-1-1st semester senior, etc.) _____

Have you taken any other courses from the professor you are now re-evaluating (Yes or No) _____

What changes have taken place in the way you now evaluate as compared with the way you evaluated this course in 1971? (For example, do you now look at aspects of teaching performance or course content that you did not consider then?) _____

_____

_____

_____

(If you would like to receive a copy of the results obtained from this survey, please check the following block.) _____

Table 1.
Sample Selection and Respondent Attrition

Category	Number	% of Class	% of Sample
Freshman Class, 1971	1635	100	—
Stratified Random Sample	250	15	100
Initial Respondents	167	10	67
Subsequent Contacts, 1974*	143	9	57
Effective Respondents**	102	6	41

* 24 initial respondents either dropped out of school or were otherwise unlocatable in 1974

** 2 students responded with insufficient data; 1 student responded too late for inclusion in the present analysis

Table 2.
Mean Score and Standard Deviation of TCE Item Responses,
1971 Responses and 1974 Responses

Number	Item	1971 TCE Responses Mean	1971 TCE Responses Deviation	Cases	1974 TCE Responses Deviation	1974 TCE Responses Mean
1	Ability to encourage thinking	6.3830	1.353	94	1.253	6.3723
2	Organization of subject matter	6.8824	1.213	102	1.186	6.8627
3	Enthusiasm for subject	7.2451	1.112	102	1.096	7.2157
4	Knowledge of subject matter	7.6436	0.672	101	0.678	7.6139
5	Interpretation of abstractions	6.8427	1.348	89	1.070	6.9438
6	Respect for students' ideas	6.7158	1.705	95	1.540	6.6737
7	Interest in students	6.4100	1.646	100	1.745	6.3700
8	Availability to students	6.3918	1.366	97	1.378	6.4742
9	Ability to motivate students	5.6832	1.800	101	1.557	5.9307
10	Preparation for class	7.0392	1.202	102	1.127	7.0882
11	Promptness in returning work*	6.2653	1.993	98	1.347	6.7143
12	Direction of discussions	6.1373	1.470	51	1.502	6.1569
13	Grading policies	6.1881	1.793	101	1.543	6.3960
14	Comparison with other instructors*	6.6061	1.434	102	1.746	6.3137
15	Relevancy of readings to lectures	7.2143	1.128	70	1.063	7.0286
16	Quality of readings	6.4384	1.500	73	1.120	6.4931
17	Quality of texts	6.1125	1.896	80	1.429	6.4125
18	Lecturing ability of instructor	5.9082	1.663	98	1.624	5.9796
19	Intellectual level of lectures**	6.9072	1.109	97	1.128	6.6495
20	Lectures as a contribution	6.6395	1.494	86	1.350	6.6744
21	Relevancy of lectures to course	7.2268	1.195	97	0.978	7.2062
22	Lectures as an integrated course component	7.0000	1.296	95	1.076	7.0526
23	Personal value of course	6.3465	1.774	101	1.903	5.9802
Average response for all items		6.6150	0.905	102	0.909	6.6240

Note. Descriptive statistics computed for item pairs with complete responses. Item responses scored on an 8-point system, with "F"=0 to "A"=8.

* T-test of mean difference significant at/beyond .05 level

Table 3.
Mean Score and Standard Deviation of Selected TCE Item Responses, 1971 Responses and 1974 Responses, for Course-related Variables

	1971 TCE Responses			1974 TCE Responses	
Course-related Variables	Mean	Deviation	Cases	Deviation	Mean
Specific Courses:					
"Composition and Literature" (English)					
Item 14	6.0000	1.225	5	2.387	4.2000
Item 23	5.4000	1.140	5	2.588	4.2000
TCE Average	6.6348	0.477	5	0.761	5.6522
"Development of Belief" (Theology)					
Item 14	6.8000	1.304	5	2.490	6.2000
Item 23	7.4000	0.894	5	2.550	6.0000
TCE Average	6.6612	0.903	5	1.425	6.6735
"General Chemistry" (Chemistry)					
Item 14	7.2500	0.707	8	0.991	7.1250
Item 23	7.0000	1.512	8	1.690	6.5000
TCE Average	6.8259	0.561	8	0.751	7.2054
"Topics in Physics" (Physics)					
Item 14	7.2000	0.837	5	0.837	6.8000
Item 23	7.0000	0.707	5	0.707	7.0000
TCE Average	6.8462	0.620	5	0.241	7.0209
Selected Departments:					
Department of English					
Item 14	6.3214	1.219	28	2.235	5.5714
Item 23	6.0370	1.372	27	2.434	5.6667
TCE Average	6.3940	1.241	28	1.002	6.3332
Department of Mathematics					
Item 14	6.6154	2.293	13	1.182	6.3077
Item 23	6.6154	1.387	13	1.938	5.6154
TCE Average	6.6778	1.241	13	1.008	6.5045
Undergraduate Colleges:					
College of Arts and Letters					
Item 14	6.5000	1.365	52	2.085	6.0769
Item 23	6.3333	1.740	51	2.230	5.8431
TCE Average	6.5770	0.874	52	0.998	6.5443
College of Science					
Item 14	6.9024	1.578	41	1.063	6.6585
Item 23	6.2439	1.934	41	1.584	6.1220
TCE Average	6.6628	0.993	41	0.785	6.7523
College of Engineering					
Item 14	6.8889	1.054	9	2.028	6.1111
Item 23	6.8889	1.167	9	1.167	6.1111
TCE Average	6.6188	0.721	9	0.932	6.4950

Note. T-test unable to demonstrate significance of mean difference of any item pair.

Table 4.
Mean Score and Standard Deviation of Selected TCE Responses, 1971 Responses and 1974 Responses, for Achievement-related Variables

Achievement-related Variables	1971 TCE Responses Mean	Deviation	Cases	1974 TCE Responses Deviation	Mean
Grade Expected:					
Above Average of Respondents					
Item 14	6.7059	1.448	17	2.164	5.9412
Item 23	6.7500	1.183	16	2.553	5.8750
TCE Average	6.6087	0.989	17	1.046	6.4970
Below Average of Respondents					
Item 14	6.7143	1.765	21	1.436	6.5238
Item 23	6.1905	1.914	21	1.209	6.4762
TCE Average	6.6380	1.060	21	0.874	6.6525
Grade Received:					
Above Average of Respondents					
Item 14	7.0625	1.080	48	1.581	6.7292
Item 23	6.8958	1.171	48	1.784	6.4167
TCE Average	6.9058	0.649	48	0.668	6.8991
Below Average of Respondents					
Item 14	6.3704	1.629	54	1.816	5.9444
Item 23	5.8491	2.070	53	1.936	5.5849
TCE Average	6.3569	1.021	54	1.013	6.3786
Grade Received Minus Grade Expected:					
Above Average Difference					
Item 14	7.1154	1.033	26	1.416	6.6154
Item 23	6.5385	1.581	26	1.185	6.7308
TCE Average	6.8760	0.662	26	0.786	6.7980
Below Average Difference					
Item 14	5.5000	2.321	10	2.440	5.2000
Item 23	5.8889	1.900	9	2.872	4.6667
TCE Average	5.7862	1.416	10	1.200	6.0024
Grade-point Average (Standardized):					
Above Average GPA					
Item 14*	6.8302	1.252	53	1.681	6.4151
Item 23	6.0377	2.028	53	1.657	6.2075
TCE Average GPA	6.5730	0.875	53	0.850	6.6874
Below Average					
Item 14	6.5510	1.608	49	1.826	6.2041
Item 23*	6.6875	1.386	48	2.131	5.7292
TCE Average	6.6608	0.943	49	0.975	6.5545
Grade Received Minus Grade-point Average:					
Above Average Difference					
Item 14	6.9038	1.257	52	1.577	6.5770
Item 23	6.7115	1.304	52	1.735	6.3269
TCE Average	6.8265	0.719	52	0.724	6.7847
Below Average Difference					
Item 14	6.4800	1.581	50	1.889	5.0600
Item 23	5.9592	2.111	49	2.019	5.6122
TCE Average	6.3954	1.026	50	1.050	6.4559

* T-test of mean difference significant at/beyond .05

Table 5.
Mean Score and Standard Deviation of Selected TCE Responses, 1971 Responses and 1974 Responses, for Interest-related Variables

Interest-related Variables	1971 TCE Responses Mean	Deviation	Cases	1974 TCE Responses Deviation	Mean
College of Student's Major:					
College of Arts and Letters					
Item 14	6.7917	1.215	24	1.154	6.8750
Item 23	6.5833	1.283	24	1.504	6.5000
TCE Average	6.7782	0.668	24	0.788	6.8200
College of Business Administration					
Item 14	6.6786	1.307	28	2.016	6.2857
Item 23	6.1852	1.861	27	2.214	5.8519
TCE Average	6.4990	0.887	28	1.028	6.6143
College of Science					
Item 14	6.7500	1.713	28	1.456	6.2500
Item 23*	6.7857	1.424	28	1.514	5.9286
TCE Average	6.7301	0.957	28	0.814	6.5950
College of Engineering					
Item 14	6.5455	1.503	22	2.152	5.8182
Item 23	5.7273	2.354	22	2.300	5.6364
TCE Average	6.4390	1.077	22	1.007	6.4575
Course in Student's Major:					
Course Not in Student's Major					
Item 14*	6.8375	1.247	80	1.859	6.2500
Item 23	6.3418	1.873	79	1.965	5.8987
TCE Average	6.6302	0.863	80	0.951	6.6026
Course Is in Student's Major					
Item 14	6.1818	1.918	22	1.262	6.5455
Item 23	6.3636	1.399	22	1.667	6.2727
TCE Average	6.5606	1.064	22	0.754	6.6997
Change of Student's Major (College):					
Student's Major Unchanged					
Item 14	6.6533	1.502	75	1.684	6.3067
Item 23	6.3514	1.876	74	1.696	6.1622
TCE Average	6.5664	0.963	75	0.835	6.6578
Student's Major Changed					
Item 14	6.8148	1.241	27	1.941	6.3333
Item 23	6.3333	1.494	27	2.343	5.4815
TCE Average	6 7507	0.720	27	1.103	6.5282
Additional Courses with Professor:					
No Additional Courses with Professor					
Item 14*	6.8333	1.230	84	1.710	6.4286
Item 23	6.2857	1.840	84	1.923	5.9881
TCE Average	6.6909	0.833	84	0.887	6.7039
More than One Course with Professor					
Item 14	6.0556	2.071	18	1.865	5.7778
Item 23	6.6471	1.412	17	1.853	5.9412
TCE Average	6.2618	1.148	18	0.946	6.2483

* T-test of mean difference significant at/beyond .05

Table 6.
Correlation of TCE Item Responses, 1971 Responses with 1974 Responses

Number	Item	Coefficient**	Cases*
1	Ability to encourage thinking	.5050	94
2	Organization of subject matter	.3534	102
3	Enthusiasm for subject	.4683	102
4	Knowledge of subject matter	.2656	101
5	Interpretation of abstractions	.3249	89
6	Respect for students' ideas	.1871****	95
7	Interest in students	.4497	100
8	Availability to students	.3486	97
9	Ability to motivate students	.5023	101
10	Preparation for class	.4508	102
11	Promptness in returning work	.4587	98
12	Direction of discussions	.2981***	51
13	Grading policies	.3740	101
14	Comparison with other instructors	.4261	102
15	Relevancy of readings to lectures	.5147	70
16	Quality of readings	.4071	73
17	Quality of texts	.2349***	80
18	Lecturing ability of instructor	.5069	98
19	Intellectual level of lectures	.3651	97
20	Lectures as a contribution	.1919****	86
21	Relevancy of lectures to course	.3072	97
22	Lectures as an Integrated Course Component	.2212***	95
23	Personal value of course	.2716	101
Average response for all items		.5296	102

* Correlation coefficients computed for item pairs with complete responses

** p less than .01 unless otherwise indicated

*** p less than .05

**** p less than .10

Table 7.
Correlation of Individual Average TCE Responses, 1971 Responses with 1974 Responses, Controlling for the Influence of Selected Achievement-related and Interest-Related Variables

Control Variables	Partial Correlation of Response Average	Control Effect*
No Controls	.5296	———
Grade Expected in Course	.5453	+.0157
Grade Received in Course	.4886	-.0410
Grade Received Minus Grade Expected	.4068	-.1228
Grade-point Average**	.5331	+.0035
Grade Received Minus Grade-point Average**	.4802	-.0494
College of Academic Major	.5315	+.0019
Change of Academic Major (1971 to 1974)	.5383	+.0087
Additional Coursework with Professor	.5123	-.0173
Salient Grade Achievement Variables***	.4127	-.1169

* Control Effect equals correlation coefficient with no controls, i.e., .5296, minus specified partial correlation coefficient

** Grade-point Average is standardized by student's college of academic major

*** Salient Grade Achievement Variables excludes the combined influence of Grade-point Average, Grade Received minus Grade-point Average, and Grade Received minus Grade Expected

Table 8.
Factor Analysis of 1971 and 1974 TCE Responses,
Descriptive Statistics

Factor Number	Eigenvalue	Percent of Variance	Cumulative Percentage
1971 TCE Responses:			
I	3.90008	64.7	64.7
II	1.48489	10.8	75.4
III	1.38775	10.1	85.5
IV	1.20326	8.7	94.3
V	.78920*	5.7	100.0
1974 TCE Responses:			
I	9.95156	64.8	64.8
II	2.06795	13.5	78.3
III	1.70934	11.1	89.5
IV	.85871*	5.6	95.1
V	.75814*	4.9	100.0

* While factors with Eigenvalues less than 1.00000 are not strong, they are included here in order to more clearly delineate changing student attitudes

Table 9.
Factor Analysis Array and Factor Identification of 1971 and 1974 TCE Responses

1971 TCE Responses			1974 TCE Responses	
Factor Number	Factor Loading	Factor Identification & Salient TCE Items	Factor Loading	Factor Number
I		Factor: Respect for Students		I
	.78888	Item 6: Respect for students' ideas	.86179	
	.84614	Item 7: Interest in students	.80029	
II		Factor: Quality of Readings		III
	.78825	Item 16: Quality of readings	.96188	
	.83196	Item 17: Quality of texts	.86519	
III		Factor: Entertainment Value*		IV
	.31703	Item 3: Enthusiasm for subject	.67957	
	.78483	Item 18: Lecturing ability of instructor	.55195	
	.70671	Item 20: Lectures as a contribution	.39379	
IV		Factor: Course Organization		V
	.62975	Item 2: Organization of subject matter	.59206	
	.68966	Item 10: Preparation for class	.72664	
V		Factor: Value of Classtime**		II
	.81945	Item 21: Relevancy of lectures to course	.81488	
	.73743	Item 22: Lectures as an integrated course component	.80180	

* Varied factor loadings associated with Entertainment Value suggest that this factor is somewhat unstable over time

** Factor number, i.e., rank order, of Value of Classtime differs sharply between the two sets of TCE responses

Table 10.
Factor Loadings and Correlation Coefficients for Selected TCE Items*

Factor & Item Identification	1971 Factor Loading	1974 Factor Loading	Item Resp. Corr.
Factor: Respect for Students			
Item 6: Respect for Students' Ideas	.78888	.86179	.1871
Item 7: Interest in Students	.84614	.80029	.4497
Factor: Quality of Readings			
Item 16: Quality of Readings	.78825	.96188	.4071
Item 17: Quality of Texts	.83196	.86519	.2349
Factor: Entertainment Value			
Item 3: Enthusiasm for Subject	.31703	.67957	.4683
Item 18: Lecturing Ability of Instructor	.78483	.55195	.5069
Item 20: Lectures as a Contribution	.70671	.39379	.1919
Factor: Course Organization			
Item 2: Organization of Subject Matter	.62975	.59206	.3534
Item 10: Preparation for Class	.68966	.72664	.4508
Factor: Value of Classtime			
Item 21: Relevancy of Lectures to Course	.81945	.81488	.3072
Item 22: Lectures as an Integrated Course Component	.73743	.80180	.2212

* Data adapted from Table 6 and Table 9